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Central Iowa Bee-Keepers' Association.

Cedar Rapids, Iowa, Jan. 21, 1874.

The third annual meeting of this association, was called to order by D. W. Thayer, of Vinton, its President, and the following officers were elected by ballot:

D. W. Thayer, Vinton, President.

D. E. Blakeslee, Anamosa, 1st Vice-President.

Thos. Hare, Marion, 2nd Vice-President.

J. M. May, Cedar Rapids, Secretary and Treasurer.

W. H. Furman, Cedar Rapids, Asst. Secretary.

On motion of J. M. May, the following resolution was unanimously adopted:

Resolved, that the thanks of this Association are hereby tendered to Dr. A. B. Mason, of Waterloo, for his interest in its prosperity, and for his faithfulness as its Secretary; also that we learn with deep and sincere regret of his loss by fire, and tender to him our sympathy; also, that this resolution be recorded in the minutes of this Association and a copy sent to Dr. Mason.

The President appointed Messrs. Blakeslee, Furman, and Newcomb, to prepare subjects for discussion during the sessions of this meeting.

During the absence of the Committee, Dr. J. Oren of Laporte city, raised the question as to the condition the hive of bees is left in when the honey extractor has been used.

Mr. Furman stated that he had used the extractor three years and found it advantageous —could make more profit from honey extracted from the comb than by box honey, though sold at less price per lb., and when properly used, the brood-comb was unimpaired and the stock of bees would be quite as vigorous as those when the extractor was not used.

Dr. Oren thought when the extractor was used the best honey was thrown from the comb, and as the bees had only lately made poor honey, he thought that was one cause of the losses of bees in 1873.

Dr. Blakeslee and Mr. Hunt expressed the opinion that it made no difference whether or not the extractor was used.

Mr. Hare claimed that the loss of bees in 1872 and 1873 was due to the very cold winter, and unfavorable spring.

Mr. Hunt recommended a "clamp" as the means of securing the safety of bees.

In answer to an inquiry, the President explained that a *clamp* means an excavation in the ground about 8 or 10 feet square, across the top of which is placed timbers. On the timbers hives are placed in a pyramid form with a space, like a chimney, in the center for ventilation, communicating from the excavation, to the air at the top of the pyramid. On this pyramid, poles, scantling or boards are placed in a roof form, and on this a coating of straw 4 to 6 inches, and on the straw about 8 inches of earth is placed to make a roof.

The President gave his experience of wintering bees in cellars well ventilated. He spoke also of his uniform success in the use of the extractor.

Dr. Oren qualified his previous remarks on the extractor, by saying that he was not wholly opposed to it, though he did not use it.

Convention adjourned until 9 o'clock the following day.

SECOND DAY.

The President in the chair. The Secretary read a letter from Mrs. Tupper of the *National Bee Journal* stating that she would be unable to lecture before the Convention as announced, on account of a failure of the trains to make connection. Her communication contained the suggestion that the Central and State Societies consolidate, also an invitation to the Association to hold its next meeting at Des Moines. Ordered placed on file for further consideration.

The business committee reported the following questions for discussion:

1. What are the benefits of the honey extractor in the apiary?
2. What is the test of pure honey?
3. What benefits are derived from feeding bees in autumn?
4. Is the Italian superior to the native or common bee?
5. What is the best method of dividing swarms with a view to increasing the stocks? and is it desirable to divide them?

6. Will upward ventilation in the cellar or room where bees are wintered prevent dampness and disease?

7. What is the best forage for bees?

The *first* of these questions had been quite thoroughly discussed in the absence of the committee—but in addition, Dr. Blakeslee stated it as his opinion that if properly used the product of the apiary would be doubled, and agreed with Mr. Thurman that honey could be afforded at less price than box honey and yet the aggregate profit would be greater. Mr. Hare stated that some purchasers thought it was a spurious article because separated from the comb by a new and novel process, and the public mind needs to be disabused on this point. Further discussion showed a large preponderance of opinion in favor of the extractor when properly used.

The *second* question was briefly discussed. Dr. Oren said that a chemical test was the true one, while the President, Mr. Thurman, Mr. Hare and others believed that the experience of most persons would enable them to determine the matter, especially when considering the fact that the globules of the pure article were unlike the spurious. The pure would keep longer and not become candied, and the taste would also indicate the difference. By bringing pure honey to a boiling heat and allowing it to cool gradually, it may be kept years in a liquid state without injury.

On the *third* question the opinion was quite general that the swarms should be allowed a liberal supply of pure honey, and small, late and weak stocks should be fed in the autumn or incorporated with strong swarms.

The *fourth* question was warmly discussed. Dr. Oren said he could not respect the Italian bee as he once did, and yet he liked them very well. Messrs. Thurman, Hunt, Goodhue, Hare, Pierce, Thomas, Tangman, Newcomb, Porter, of Illinois, and others, were generally agreed in their praise of the Italian bee.

On the *fifth* question each had his own peculiar method for dividing and hiving swarms, all agreeing that the honey-bee, of whatever nativity, knew how to sting.

The *sixth* question elicited a full discussion as it involved the vital points in relation to the great loss of bees in the winter of 1872–3, and in the spring following—many losing their entire stocks, and others nearly all. The cellar, the *clamp*, burying them, allowing them to remain on the stands as in the summer and covering them with blankets, were severally considered. The concurrent opinion was, however, that in any case, a dry, pure atmosphere and a warmth or temperature of 30 to 50 degrees and uniform as near as practicable, should be maintained to secure safety and freedom from disease. Freezing and dampness should never be allowed. The severity of the winter of 1872–3, followed by a backward, wet spring made very indifferent forage for those that survived the winter, and want of experience in giving proper care, contributed to superinduce disease and the heavy or total losses. Still, those who observed the most approved care and caution hitherto used by the apiarian, suffered heavy losses, indicating that much is to be learned, and that thorough search into the cause of the disaster should be made, and remedies sought; also, that special encouragements, legislative or otherwise, should be afforded those who, in the face of discouragements, dilligently pursue a research that promises so much wealth to the State.

The *seventh* question was considered at some length. Linn and Alsike clover were highly appreciated. Mr. Hare, also Mr. Furman, said they had raised this clover for bee pasturage and were much pleased with it. It should be sown early, on well prepared ground—even on snow if the land had been thoroughly prepared in the preceding fall, and a hay crop, as well as honey, would be the result. Great care should be observed in selecting seed, lest sorrel (a bane to the farmer) should be mixed with it.

Convention adjourned until the following day, at 9½ o'clock.

THIRD DAY.

Convention called to order by the President. The question whether or not bees were taxable property was raised by Mr. Goodhue and discussed generally by the members of the Convention, when the Secretary offered as a means of solving the question the following

MEMORIAL.

To the General Assembly of the State of Iowa, in Senate and House of Representatives assembled:

Your petitioners, citizens of the State of Iowa, respectfully call your attention to the following considerations:—*First*, That Iowa has, until 1873, been deemed one of the best bee raising and honey producing States in the Union—its trees and flowers furnishing, in the language of apiarians, abundance of bee pasturage. *Second*, That in the winter of 1872–3, and in the spring following, about *five-sixths* of the swarms of bees in the State perished by disease. *Third*, that many persons have become discouraged, and have abandoned, or propose to abandon, the business, preferring to do so than to be taxed on so precarious a business. *Fourth*, That the native riches, in honey, of the tree and flower blossoms referred to, will remain undeveloped and valueless, unless the gathering and utilizing of this dormant wealth is in some way fostered and encouraged; and as the State may advance its material interests by encouraging those now engaged in apiculture and inducing others to do so, and as no injury can arise to the State or its revenues, but ex-

actly the reverse, we ask for the enactment of a law exempting from taxation, and from levy and sale on execution, honey-bees and their products until the year 1880. And your petitioners as in duty bound, will ever pray.

The above memorial was unanimously adopted as the petition of the Convention, and was ordered to be signed by the President and Secretary, and forwarded to Senator Kephart of Linn County, with a request that he will aid in procuring the passage of the law prayed for.

On motion, citizens, associations and societies similar to our own, favorable to the object, are requested to join us in our efforts to procure the enactment of the law desired.

After the customary vote of thanks was passed, the Convention adjourned to meet on the third Wednesday in January 1875, at Cedar Rapids.

D. W. THAYER, *Pres.*
J. M. MAY, *Sec'y.*

For the American Bee Journal.

Our Afflictions.

Not always is the bee-keeper's path strewn with clover-blossoms—

"Roses, Cyula! you mean roses," interposes Nellie, looking over my shoulder with a critic's eye.

No, indeed! What bee-keeper, worthy of the name, would exchange clover-blossoms for roses? Moreover, the phrase is more truly descriptive, besides being considerably less shop-worn."

Not always is the bee-keepers' path strewn with clover-blossoms, nor always to his eager lips may the honeyed draught of success—

"Which is his *mead?*" queries Nellie.

Putting down my pen, with mild severity I speak: "My dear, if you have any *sensible* suggestions to offer"—

A succession of brisk, snapping sounds accompanied by an odor as of burning coffee, creates a diversion which enables Nellie to make a not altogether inglorious retreat to the kitchen.

Resuming my pen with an unhappy consciousness of being unable to begin exactly where I left off, I spend some moments in perplexity, nibbling at the end of the holder. I become aware, at length, that it will be necessary to take an entirely fresh start.

* * * * * *

Do my readers — any of them — remember our "maiden" swarm, of last July? We thought its story told; but alas! there is a sequel. "Happy is the nation that has no history," says a wise old proverb; and no less true is it of a *colony*.

From the time that our "maiden" swarm—No. 7 by name—decided to accept the situation and make the best of it, they had furnished no occasion for criticism. Their ten frames were speedily filled with faultlessly regular combs, whereof but a trifling amount was drone comb. In some shallow frames above, they likewise put goodly beginnings of worker comb, for which next season will find use.

On the 16th of October, when I made for them winter passages and removed surplus honey, my only anxiety was lest there were too many bees for profitable wintering. At this time there was a little capped brood, but neither eggs nor larvæ. The day being somewhat cool, and unnecessary exposure an evil, I made no search for the queen, and did not see her.

The bees were unusually cross, and, in subduing them, I used a little tobacco —something I had never done before. (Be assured, however, that it was not used in masculine style.) Whether this had, or had not, any connection with what followed. I cannot tell.

Toward night of this day, an unusual commotion was noticed at No. 7. There was running to and fro at the entrance, and hurrying hither and yon, as viewed through the observation-glass. Applying my hand to the glass, I found an unwonted degree of heat. We agreed, Nellie and I, that it was curious! We agreed, too, that we were unable to solve the mystery, and also to wait calmly, and without much anxiety, for the excitement to subside.

A latent fear, however, awoke me early next morning, and impelled me to go forth to make renewed investigations before breakfast. It was a cool, frosty morning. To my surprise, the observation-glass was still warm, and the bees were still excited. While I pondered, I noticed at the entrance a dead body of unusual appearance, and bending nearer, I saw, to my unspeakable horror, that it had no wings! that it was a queen—even my poor Rebecca!

(The experienced bee-keeper, who has lost whole colonies, or mayhap, an entire apiary, by disease, or frost, or fire, will be kind enough to conceal the smile he may not be wholly able to repress. To lose the queen to one's strongest colony, so late in the season, was misfortune enough for a beginner. But *this* queen was peculiarly dear to me, as being the oldest queen of my own rearing,and the only queen whose wings I had heartlessly clipped.)

When sufficiently recovered to do so, I picked up the little body and vainly tried to warm it to life with my breath. Then, having carefully but hopelessly, deposited it in a warm place, I obeyed a summons to breakfast, and seated myself to pour the coffee, with what was meant for a calm and tranquil demeanor.

"Are you sick, Cyula?" inquired Richard.

"Oh no!" I responded, with a ghastly smile, and a sudden but nerveless attack upon a large potatoe.

"Shan't I make you some toast, Cyula?" anxiously inquired Nellie, a few moments later.

"Oh no, I believe I am not very hungry this morning."

"But wouldn't you like a cup of tea?" persisted Nellie.

"No,—your coffee is delicious, Nellie," hastily raising my cup.

"I believe that you had not tasted it!" she exclaimed, half indignantly. "It is one-half, at least, cold coffee warmed over!"

Conscious guilt prevented other reply than an apologetic smile. A little after, Nellie's hand stole across under the corner of the table, and gave my dress a sympathetic twitch. As I looked up,

"What is it?" her eyes asked.

"Nothing — that is—after breakfast I will tell you," I responded in an undertone; and then, having replenished the empty cups, I escaped to the next room, whither Nellie soon followed me: her breakfast, spite of my good intentions, having been almost as effectually spoiled as my own.

An hour afterward — various plans having been discussed and rejected meanwhile—Nellie suggested:

"Send to Mr. —— for a queen."

"'Tis too late, I fear."

"Do you fear that he has no queens left? or that the weather may be too cold to send one?"

"Both."

"But since nothing better can be done you might try."

Briefly told, the trial was made. Fortune favored our attempt more than could have been expected; and about twelve days after Rebecca's decease, we received through the postoffice, a cunning little cage, holding the much desired queen, with about a score of attendants. The tiny colony had been amply provisioned with half a stick of candy and a small sponge of water. Not a bee had died during the four days which had elapsed between the posting and the receipt of the small package.

We felt then that our trial was over. To suppose that *our* bees could be unreasonable enough, and so ungrateful as to object to their new queen, scarcely occurred to us as a possibility. We had so identified ourselves with the colony in their loss, had been so affected by their plaintive moanings (or what, to our excited imagination seemed such), by their restless searchings, and aimless wanderings—in short we had made their grief so much our own, that —as in effect we have already said— we scarcely thought to ask ourselves, if *they* would sympathize with *us* in our joyful reception of the new queen. In our simplicity we took it for granted.

Nevertheless, we thought best to proceed according to rule: so, for more than forty-eight hours, the bereaved colony were permitted to make the acquaintance of their new sovereign, through the meshes of her cage. Then the final introduction was performed with great ceremony, and according to all the rules of etiquette for such cases provided. Apparently, it was successful. I had one night of peaceful repose.

Next morning, just to make assurance doubly sure, I sent out Nellie to examine the entrance of the hive, I watching her through the window.

She brushed away a few dead bees, examining them in a manner satisfactory enough to her interested observer, until, with a sudden start, she glanced

up at the window. It was enough—the story had been told!

I left the window, and presently Nellie came in to tell me, what I already knew—the new queen had been murdered by her rebellious subjects.

CYULA LINSWIK.

North Eastern Bee-Keepers' Association.

THE FOURTH ANNUAL CONVENTION, HELD AT UTICA, N. Y., FEB. 4 AND 5, 1874.

FIRST DAY.

After the preliminary business matters were disposed of, President M. Quinby, of St. Johnsville, delivered his opening address, from which we print extracts as follows:

WHY DON'T FARMERS KEEP BEES.

This question put to most farmers might be briefly answered, Because I don't know how. But, like the Yankee, who answered one question by answering another, it indicates the importance of asking *why* we do not know how. And answering this involves the asking of a thousand others in the multiplied ramifications leading from it. Do not expect me to answer all, or even very many, for the very significant reason given above, *I do not know how.*

Bee-keepers desirous of promoting this branch of science, must present inducements to the farmers themselves, before they have any to present to their sons. Nearly all that have been offered have been presented very unskillfully. One class simply believes that improvements have been made in the hives, without understanding why they are improvements; and we find some hives patented, not because they are improvements, but because they are different from others. Bought and sold, not because they will promote bee-culture, but because money is expected to be made without labor. Practical knowledge of management can no more be bought with a price, than capacity for the school-boy. Failure has been the consequence of supposing it could, and to-day ten empty hives can be found piled up as wasted lumber, where one can be found containing bees. The result presents but few inducements for the farmer to begin bee-keeping. Another class—small to be sure—endeavor to make bee-keeping attractive to the masses. Owing to the peculiar training of the farmer, and his own ignorance of the subject, their efforts have proved nearly abortive.

Two years ago, some progressive bee-keepers attended the discussion on this subject, at the rooms of the State Agricultural Society. It was expected some success would follow their efforts, as some important points in their experience were given, the result of what they knew—little in comparison to what will be known—and they gave it freely, without money and without price. It was shown very conclusively that a man had secured, in one season, 25,000 lbs. of surplus honey, and saved his bees for another year, his sales amounting to over $7,000. We exhibited very clearly by this one case the amount that could be collected on a small area of land. And this in turn gave very clearly the amount produced in the area of the whole State—which amounted to millions upon millions of pounds—that of other States not mentioned. The object in making this statement was to show that there was no lack of honey to gather, now wasted, to engage all the enterprise likely to be enlisted in a hundred years yet. The object in stating the amount collected by one individual, was to show the difference in results, between the old and new method of bee-culture.

Understanding something of the manner in which farmers had been educated in this matter, and suspecting it might not be received as a truthful relation, it was suggested that a committee be appointed to investigate the statements made by the society. A resolution to that effect was offered, but never carried out. Had it been, it might have settled the point relative to the facts. A prominent member, an officer of the society and chairman of the meeting, who seemed to know something of bees by his own experience, said that he had kept bees many years, and never found them very profitable. Once in about five years in good seasons, they paid; other seasons it was more trouble to keep them alive, than they paid for, advised young farmers to be very careful how they invested in the business. In these remarks we find an answer to the question why a certain class do not keep bees. Coming from a prominent man, all would suppose him qualified to decide. On what grounds the decision was made was not asked. He evidently did not believe the statement made by the society. But his experience of twenty years ago could not be supposed to have any great value now, and it was hardly fair to give it as proof that bee-keeping would not pay, thus discouraging future effort. Sheep husbandry has been taught for thousands of years. Should a man that discovered some improvement over his neighbor's management at this late day refuse to give it to his neighbor; or should the neighbor, if it should be given him, refuse credence to his story because he had kept sheep many years and thought he knew about all there was to be known on the subject, and say that some years they paid very well, but he thought the chances of dry weather, poor pasture, poor fences and other casualties made it rather risky business? Should he not be careful how he discourages progression? This course, no doubt, discouraged bee-keeping the more be-

cause of the high source from which it came.

Teachers in any new science must expect to labor without recompense in worldly wealth. It must first be established beyond dispute that it is a science, that there is knowledge yet to be had for the inquirer. There must be created a desire to obtain this knowledge before any recompense is thought of. I will not say that some of the objections raised have their foundation only in spite, but they certainly savor a little of it. It would almost seem as if the greater the success, the stronger the opposition.

The greatest calamity that has befallen bee-keepers the past two winters, has been the loss of stocks. Whenever a similar calamity visits the dairyman or horse breeder, like the rinderpest or epizootic, the whole country is agitated. Not a paper but hoists the signal of distress, losses are enumerated, damages recounted, remedies suggested, and sympathy without stint given.

But when the bee-keepers are assailed with reverses like the devastations of the moth, foul brood, calamitous wintering, etc., etc., not a note of distress is sounded, nor a word of sympathy uttered, perhaps because we are weak in numbers. Unless we can help ourselves, it appears we must not expect to be helped. How much have we done toward solving the problem of the past two winters? Among all the theories yet advanced, only a small part, as yet, seem probable. Dysentery in one of its worst forms, is common immediately preceding the death of the colony. Most of us have inquired into the cause of dysentery. It has been suggested that it is in the unhealthy quality of the honey, and pure syrup of sugar has been substituted as food for the bees, hoping to avert the disease. Others have supposed that simply protracted cold will produce it. Others have taken this view of it: When the bee has filled itself with its food — honey or syrup — and is kept warm enough, the liquid portion passes off into the air, in the form of vapor, while the more solid part is changed into wax, or passes as excrement in a dry state. But when the single bee is chilled for only a short time, or when the cluster is chilled between the combs in the hive so as to prevent those on the outside of the cluster from changing places with warmer ones inside, the liquid portion is not exhaled, but remains in the abdomen till it can no longer be retained, and they leave and discharge it, soiling everything near at hand. They seldom return, and the cluster grows smaller, till gone.

It is proper that we should, like skillful physicians, examine the subject in all its bearings, and if we are fortunate enough to find the cause, we may possibly find the remedy; in which case we shall benefit bee-keepers as much as the philanthropist who helped discover the cause and remedy of rinderpest. If bees can be made to pass the winter as safely as cattle or horses, we shall have taken one important step toward advancing bee-keeping. I think they can. Some of the younger members among us may yet consider this calamity a blessing. They may be led to guard against future disaster successfully, by the investigation of facts which would never have been thought of but for the disaster.

The fear of stings is greatly in the way of progression. Can we not do something more to remove some of this faint-hearted timidity? There is much to be done in this line. The man can do but little in studying the nature of the bee who is constantly thinking of stings, instead of his studies. If he makes the sting a study—and it is a broad one,—he must get rid of the dreadful fear of it, or he will not progress very much. He may sit quietly down, take the sting, with or without a magnifier, and he will see that he has only a small instrument of warfare, so minute that a puncture in the flesh made with it, would not be realized were it destitute of poison. He will then inquire what made the smart. Examing closer he will discover at the base of the sting quite a lump detached from the bee's body—apparently a part of it—saturated with a clear, transparent liquid; it may be seen glistening over the surface before parted from the bee. When thrust into the skin a very small particle of the subtle poison is transmitted into the flesh, producing the sensation so much dreaded.

When a quiet cluster is resting and disturbed moderately, they simply put up the abdomen in such a way that it will not touch another bee, put out the sting, and exude a tiny globule, nearly covering it, saying as plainly as actions can speak, "You must beware how you proceed further. See what the Creator has given us as defense against the ruthless spoiler. You have wronged us for ages. We begin moderately, as you have. Now we have given you a sight; we have given you a sniff; we *can* give you a taste." When he can understand their language, if he is judicious, he will set himself to interpreting it—will try to see under what circumstances bees are disposed to sting; see when this acrid poison is set afloat in the air, and what effect it has on other colonies; see if a quick motion, while this is in circulation, does not attract attention. He will discover that bees, when busily engaged bringing stores have less time to resent insults—real or imaginary—than when quietly reposing on a cool morning; and that on a pleasant day they are less spiteful; and that such time is the best to work with them. When this poison is floating about, informing surrounding bees that they have been disturbed, he will inquire if any substance will neutralize or destroy it. He will find that smoke of

rags, paper, wood, or tobacco, thoroughly diffused through the atmosphere, will do it effectually. This has long been used. But he will ask if the best way of applying it has yet been discovered; if he is thorough he will find whether it can be applied so effectually that none of this poison will be perceptible in the air, and no bee have cause for anger or disposition to sting. And he may go into their midst without fear, nor tremble at the approach of a tiny bee; and he can pursue his studies and make discoveries unmolested, and add to our knowledge of the science.

When this is known, this pursuit will be made more attractive and profitable to ladies and children, and *even farmers' sons*. When we can trace the natural history of the bee as it is, not as said to be by thousands who have drawn on imagination for theories, that can be upset by the first scrutinizing observation of facts, we shall be more likely to interest the student. Witness the mistakes made—almost with his last breath—by one of the most profound naturalists of the age, before a college of students. It was copied by the agricultural press extensively. It was criticised by one who had made this branch of natural history a specialty. Few, probably, would dare sanction the criticism, not knowing enough of the real history of the bee, to decide upon its merits; they would be likely to conclude, as most of us would, that the eminent man was probably nearest correct. It is our duty to examine all these things, that we may be able to decide for ourselves, and advance science.

I have endeavored to show that we are not to blame for what we do not know—that we cannot *make* a thought. But when we have a thought, which, given to others, would make them think, and we refuse to give it, are we not censurable? I have endeavored to give some of the reasons why the people do not keep bees; also some reasons why they should keep bees. Will each of you go farther and explain things clearer.

Upon motion of Captain Hetherington, a vote of thanks was tendered to President Quinby for his able address. Mr. Alexander, of Camden, expressed his deep appreciation of the unselfish motives and generous good will which induced the President and other eminent bee-keepers to prepare addresses for the instruction of their fellow-men when no hope of pecuniary reward could incite them.

Mr. S. Alexander, of Camden, read a pleasing paper, of which the following is an abstract:

Whether the Darwinian theory of evolution be the true one, that matter is its own lawmaker, or whether, with Agassiz, it requires some special hitches occasionally, or whether, with Davis' harmonial philosophy, that spirit acts in and through matter, is to me, at present, of very little account—enough that this world contains bees and men, and that they are mutually advantageous, and, perhaps, mutually instructive. While others, with philanthropic intent, are hoping to educate them to resignation to be plundered scientifically, as we are legally, be mine the task to try to educate myself, by studying some of their peculiarities and characteristics.

Their polity, their government, their way of doing things, I think is somewhat instructive. They can not be said to be strictly communists but thorough co-operationists, which I think is as far as they have gone, and farther than we have gone. I think we might take some useful lessons from them; for instance, from their manner of disposing of gentlemen of leisure, though on humane and philosophical principles, I am opposed to capital punishment; but I am willing to let them try out-door exercise even if the coming season be somewhat inclement. Whether these gentlemen are credit mobiliers in the hive or out, or only go in for watering stocks, I will not attempt to say, but the patrons of husbandry of the hive seem to consider them as middle-men, only to be used when absolutely necessary, and at all other times worthy of immolation. Whether they go for salary grab, or civil-service reform, seems entirely inconsequential to the internationals, Italian or otherwise. Indeed the gold-ringed counts seem to be as radical as our black republicans. And then there is the woman question; here, perhaps we differ some, the most of our lady apiarians maintaining, I presume, that it is the best government ever devised by bees or men—queen in regal dignity, presiding with graceful authority; while others,—and that they should have the Quinby authority in their favor! that it is a strict democracy.

Captain Heatherington, Treasurer, read his report, acknowledging a total of receipts of $51.00, including the previous year's balance. The receipts of the last convention were $17. The expenditures for the year were $21.09.

Agreeable to a suggestion, the Secretary read the Constitution, and an opportunity was offered for the enrollment of new members. Several new names were added to the list.

The election of officers for the coming year was effected with the following results:

President—M. Quinby, of St. Johnsville.

Vice President—S. Alexander, of Camden.

Secretary—J. H. Nellis, of Canajoharie.

Treasurer—J. E. Heatherington, of Cherry Valley.

President Quinby presented the following question for discussion: "Does the clipping the wings of the queen injure her capacity for usefulness?"

P. H. Elwood had never observed that clipping, properly done, injured the queen. If the clipping was too close he had known the workers to kill her.

Secretary Nellis asked how short to clip.

Mr. Elwood thought one wing two-thirds off was best.

Mr. Quinby stated that the object of clipping was to prevent the queen from flying when the swarm comes from the hive, and without the queen the swarm will not depart. The question is, Is the queen rendered less fertile by the clipping?

Mr. Nellis. At the Louisville Convention, a member read a paper on bees' wings, in which it was stated that several of the functions of the bee were located in the wings, such as breathing, etc. I think the theory very erroneous. I have practiced clipping for five or six years, and have seen no bad results. I have at present more than forty queens with wings cut off, and consider them as servicable as others.

Mr. Doolittle, of Onondaga Co. I would like to ask how many wings were cut, and what instrument was used?

Mr. Nellis. I have sometimes cut all the wings two-thirds off, and I did not consider the queen injured. Formerly I cut the wings with a knife, but now I use a small pair of lady's scissors. I would advise cutting the wings *on one side* two-thirds off.

Mr. Vandervoort. I have clipped queens for fifteen years, and never saw any injury from it, except where I had cut so short as to hurt the bone.

Captain Heatherington. I have practiced clipping some time. I have had three and four hundred clipped at once. Clipped queens are more likely to be superseded. I think this happens because the queen is regarded as a cripple by the other bees. But I shall practice clipping, nevertheless.

Mr. Doolittle. I am certain that clipping off both wings and one leg will not injure the queen's capacity.

Mr. Alexander. I have no doubt that the bees perceive the deformation, and are led to supersede her. I think, also, that continued clipping might, after generations, affect the insect. There are sensations located in the wings, and bees communicate by the noise made by them, but convenience calls for clipping, nevertheless.

Mr. Doolittle. I think I can prove the ability of clipped queens. I have clipped off a queen's wings and a hind leg close to the body, and the bee worked for four years.

Mr. Heatherington. The point needs wider proof than a single instance.

Mr. Doolittle. I have several queens all of whose wings are clipped close to the body.

Mr. Bettsinger, of Onondaga Co. I agree with Mr. Doolittle. I have seen his crippled queen. She is a good effective queen. I have clipped for eight years. I began by clipping one of the four wings, and the queen went with the swarm. I then clipped off every wing entirely. I have ninety queens without a vestige of a wing, and I can say, Do not be afraid to clip off the wings.

Mr. Heatherington. I am certain that no queen with a wing clipped can light with a swarm upon a tree.

Mr. Doolittle. I have known of cases like that instanced by Mr. Bettsinger.

Mr. Nellis. I think even a little of the wing clipped would retard the flight. I can not comprehend how a queen with a whole wing gone could go with a swarm.

Mr. Quinby. I know of a case in which a swarm went out with a young queen, and left the clipped queen in the hive. Perhaps some of the contradictions may be accounted for by the fact of new queens.

Mr. Doolittle. A queen, after ridding herself of her eggs, becomes as slim as a working bee, and can fly with one wing gone.

Mr. Elwood. I claim that clipping off all the wings subjects them to hazard in falling, as a queen with part of a wing gone could not fall as one with all gone. I think clipping one wing on each side of the body might balance the insect and enable it to fly.

Mr. Heatherington. A clipped queen is most likely to drop from a cluster in moving.

Mr. Bettsinger. Black bees are more liable to drop than the Italians. Italians cling close ly to the comb. I experiment continually, and have tried to see whether the clipping injured the queen. The wings are to bear the body through the air. They cannot use them in the hive. They cannot make a noise with them; they can not do anything with wings but go through the air. The queen's business is in the hive, wings are of no use there.

The question next presented was, "How soon after hatching is the queen capable of laying?"

Mr. Quinby had known them to lay in seven days.

Mr. Nellis believed, in the working season, the average was nine days.

Mr. Doolittle said the shortest time he had known was three days, generally from four to six days. Mr. Bettsinger approved of four to six days, under favorable circumstances, in the majority of cases. Mr. Elwood said, once his trouble was to get them to lay at all. Sometimes two weeks elapsed, and in the fall it was longer. Mr. Bettsinger would kill queens which did not lay in ten days. By favorable circumstances, he meant a full swarm, with bees working well and putting in lots of honey. Mr. Doolittle made a distinction between natural, artificial and forced queens. He thought forced queens good for nothing.

Vice President Alexander, assuming the chair, submitted the question whether those queens raised by artificial means are equal to the natural production of the hive.

Mr. Doolittle said he meant, by forced queens, those which are hatched in from seven

to ten days. An artificial queen, hatched in from eleven to fifteen days, is as good as a natural queen.

Mr. Quinby had raised queens for ten years. He never raised one which came out short of ten days. He knew nothing of five or seven days queens. He gave the bees brood and watched the time; they never gained but a few hours on the ten days. He could not see what was meant by forced queens. How are they distinguished from a natural queen? They are raised in a small box containing forty or fifty eggs. The bees find they have no queen and go to make one. The whole attention of the group is directed to producing a queen. In a full hive there are combs to be taken care of. In the box the bees can work for the queen. The fertility of queens raised in a little box shows the better care their rearing has had.

Mr. Doolittle's idea was that queens could be hatched in seven days, taking larvæ five days old. He had raised such queens and they were useless. It may be done in a full hive or in a nucleus box, the result is the same.

Captain Heatherington asked how he could estimate the age of a larva.

Mr. Doolittle said a larva five days old nearly filled the cell, and the bees can convert such a larva into a queen. His method of raising queens is by taking the queen out of the hive, and inserting brood of another species if he wishes to make a change. In the hurry to get a queen the bees will take the larvæ which can make queens soonest.

Mr. Bettsinger used the small box first, and then raised queens artificially in a natural way in a full stock of bees. First take away the queen, then in 6 or 8 days cut off the cells started and introduce eggs of the kind wished for. As the egg hatches into a larva, the bees feed it and thus secure natural queens, artificially.

Mr. Vandervort had raised queens since 1863, and had never known a queen to hatch in less than 10 days.

Mr. Doolittle said his experiments were very accurate, and he was satisfied with his results.

SECOND DAY.

Mr. Quinby called for the discussion of the question, "The best mode of wintering bees." Mr. Bacon said his trouble is in "springing" bees, and he wished that added to the question. The discussion followed:

Mr. Quinby. For forty years I have kept bees, and during the last two years I lost many more than usual. I propose to inquire into the causes of the fatality. If the cause is in the honey, or in the temperature, we should know it. The honey has probably not changed from year to year. The cold weather has been severe and protracted. Experience should be related upon this question of causes.

Mr. Bacon, of Verona. My first lesson in bee-keeping was severe. I was nearly stung to death in childhood. I have kept bees ever since. I never had any experience with dysentery in bees until the last two years. I have, until two years, kept bees successfully in a cellar. I have had less difficulty with the old box hives than with the frame hives. I never had, until lately, any cases of dysentery with the box hives. Last year I noticed it, but it was in frame hives. I put out the bees in good condition in April. The weather was cold. My best bees were gone by the first of May. They died seemingly in the fields. I believe the cold winds killed them. Their constitutions were first weakened by the long winter and by the poorer quality of the honey, and the cold air struck them down. About the first of June the weather changed, and bees which had any life revived. I have now built a bee-house. I dug a trench two feet deep, twelve by eighteen feet. I filled it with stone. This was the foundation for the sills. My studs were five inches deep. I boarded outside and inside and filled in with dry earth. Overhead the ceiling was close and filled in to the tops of the joists with earth also. I filled the windows with closely fitting sawdust boxes. The doors were like safe doors and filled with sawdust. My walls have three thicknesses of boards, five inches of dry earth and two inches of dead air. I ventilate with a tube six inches square made of boards nailed together. This tube has a damper in it, and runs along the floor, and has holes bored in it to let the air escape into the room. I have top ventilation with two five-inch apertures, which may be closed. I put in the bees, packed closely, one stock above another. The room is darkened comfortably. I put the bees in, in November. The weather was very severe about the middle of the month. Before the bees were put in, I heated the room very warm to drive out the moisture, then put out the fire and let it gradually cool down. In January, on a fine day, I took out half the bees and gave them a chance to fly. After a time, those taken out had no dysentery, while those which had not been aired had it. I am very reluctant to enter the bee-house with a light. The temperature runs about forty degrees on an average. It is warmer than I ever kept them before. The cost of my building was $125 in cash; no charge being made for my time. A building of the same kind might be built rougher and cheaper. I believe sugar feeding will not save bees. It may be a little better than honey in some respects, but not generally trustworthy. My frame hives which failed to winter were seventeen by nine and one-half inches. I never will use any frames short of a foot deep in the clear. Bees will winter better

in a deep hive. I put straw over some of the hives, and they did better than those without.

L. C. Root. In wintering bees, there are three things necessary: Proper condition when going into winter quarters, proper temperature, and quiet. Bees are usually in best condition to go into winter quarters, when the honey is stored from time to time during the season—the amount being increased as the brood diminishes. This leaves empty comb where bees cluster. The principal objection to late fall feeding is the hive contains no brood, and the honey or sugar fed is stored too much in the centre of the combs. We find that about forty-five degrees is the proper temperature where they are subject to any jar. I think if they could have perfect quiet, they would stand a much higher temperature, and consume a less quantity of honey. In our cellars the present winter, where the thermometer stands at forty-five to forty-seven degrees, one swarm consumed two and three-fourths pounds during November; one and three-fourths during December; one and three-fourths pounds during January. Another swarm consumed four and three-fourths pounds during November; two and three-fourths during December; five and three-fourths during January. The difference in quantity is owing to warmth and quiet.

S. A. Cleveland. I believe we should report our losses. A year ago I had forty swarms in good condition. From all my frame hives I had extracted the honey. I continued to feed one-quarter of a pound a day of sugar, until April 1. They seemed in good condition. I set them out, and they were raising young bees. About April 20th I noticed they did not eat the honey. I only succeeded in getting seven through the spring. Four out of six in box hives survived. They had no honey taken from them during the year before. Last year my record was all reverses.

M. H. Tennant. Quiet is what bees need. I went into my bee-house Wednesday evening, and I never saw better swarms than those fed with my feeder. I feed nothing but pure box honey. I have succeeded very well with straight "A" sugar. My house is fourteen by sixteen feet, above ground, with saw-dust-filled walls, ventilated above and below, the current of air passing up the centre of the room, and the bees standing around the sides. I put cleats on the floor, and then piled the hives one above the other, bringing them out a little from the wall. I think a floor should be avoided, as you can not step on it without jarring. One winter I only went into the bee-house four times, and only lost two swarms. In the spring I lost eleven. I found them around on the fences, where the wind had caught them and chilled them fast.

L. C. Root. It is protracted cold which ruins the bees. A wind from one direction will drive the bees to the other side of the hive. They will eat all the honey on that side and die. They cannot get back to the food on the cold side. Getting excited induces the bees to leave the cluster, and then they get chilled easily.

R. Bacon. I am slow to believe that cold alone produces dysentery. We should learn the cause for a certainty, if possible.

S. Alexander. I believe with Mr. Root that long detention in the house will not injure the bees. We bought a hive of a neighbor who left it in until May 15. It was the best hive we had. We put out the bees early, and saved them, but those left in until May were the best bees. The idea in modern hives is to make them non conductors. This, of course, makes it slow business to warm them. Thus protracted cold results. This might account for Mr. Bacon's bees not doing so well in frame as in box hives.

J. H. Nellis. This would work if bees were not capable of producing warmth. In an article written some time ago, Mrs. Tupper asserts that she wintered bees very successfully in a cellar, under a living room in which children were constantly romping. I once wintered bees, some in box, some in frame hives, under ten feet of snow, from January to April. I shoveled them out and rapped on the hive with no result. They were dormant, and it took an hour to revive them. They were in good condition. I have wintered bees very nicely in a cellar at a temperature of forty degrees. The last two winters have been disastrous, however. The winter of 1872, I had seventy-seven stocks in the cellar—forty-four in box hives. Lost more than one-half of those in box hives, and but few of those in frame hives. I think the bees in frame hives were stronger and more thoroughly bred. I lost about one-fourth of my stocks. In the fall I fed five stocks on sugar syrup. They wintered better than the average, yet not satisfactorily. Those subsisting on late-gathered honey wintered as well as those supplied with honey stored early. The cellar averaged probably about thirty-five degrees. I think they should be kept warmer—about forty-two degrees, and after the first of March they should be warmed frequently to fifty degrees. I would have them breed considerably after the first of March. I think the scarcity of young bees at the time stocks are taken from the cellar, the prime cause of disaster in the spring. The old bees die of natural causes, and leave what little brood is started, unprotected. I have known stocks in rickety box hives to winter well out of doors in the most exposed situations. Facts are so apparently contradictory, that I cannot reach any certain conclusion.

Capt. Heatherington. We bought some bees in Vermont of a Frenchman who had left his bees until May. His bees were in as

fine condition as I ever saw anywhere. I think they were put in early. The shelter was rather defective, but the walls were made of earth, and the principle was correct. The floor was of earth. I find a bee-room an excellent place for keeping honey in the summer, and to avoid the danger of jarring the floor, a coating of saw-dust might be used. I began wintering in a building, and was successful. I left some out of doors and they were stronger. I changed in-door practice to out-door wintering, and changed to straw hives to winter out of doors. Straw is a good conductor of moisture and non-conductor of heat; that is what we need. Since we changed to the Quinby hive and changed the temperature we have lost many swarms. I have now a special bee-house. The foundations are banked with earth. The floor is doubled, with thick paper between. The paper is made of prairie grass. The frame is a balloon frame, with plaster board on each side, and side boarding outside, and ceiling inside besides. The space between the studs is filled with planing machine shavings. The walls are "furred" out and another thickness of paper so put on as to make a chamber of confined air, and ceiled again inside the paper. The walls contain three thicknesses of plaster board, three thicknesses of boards, and six inches of stuffing. The joists overhead are three by eight inches. The plaster board and ceiling board are fastened beneath the joists, the space filled with stuffing and plaster board, and tight flooring placed above. The building is eighteen by twenty-four feet, with partition through the middle, and hives on shelves around the sides. I am favorable to the use of dry earth in the walls.

R. Bacon. I line with rough boards, and the influence of the dry earth can be gained through the cracks between the boards. I will give a hundred dollars for a method which, with fair management, will enable me to keep bees through the winter.

L. C. Root. The convention can afford to give $5,000.

G. M. Doolittle. Mr. Bacon's trouble with dysentery was caused by his disturbing the bees left in, and not because some were taken out and others left in. I believe if a swarm dies before February 1, it was good for nothing when it was put in. I began with Mr. Quinby's method and wintered bees in the cellar. They did well the first year. The next year they came out well, but dwindled away because of the cold spring. Next year there were many soiled combs. In the spring I lost heavily. I then began out-door wintering, sweeping the snow around the hives after every storm. I used Novice's quilts, and packed straw in the caps above. Until January 1, all was well. Then they began to steam up. The hive was in commotion. I took off the straw, leaving only a quilt. The quilt is calico cloth lined with cotton. The next morning they were still in bad condition. I took them into the cellar and got the hive through, but it was not of much use. I believe too warm weather is more dangerous than too cold. Fifty degrees I believe is too warm. It is too warm when they begin to breed. Last spring my bees came out in good condition. For two weeks we had warm weather and the bees worked well. Then came the cold weather. After five days the larvæ were mostly dead. Many hives had only a double handful of young bees. I would not have bees commence breeding until after the first of February. I had a hive without brood until May, and it was the best hive I had. I made forty-five dollars from that hive.

L. C. Root. Don't close your hives at the bottom, so that the bees can not get out if the temperature induces them to fly.

R. Bacon. I tried shutting up hives at the bottom, and supposed they were doing well. I examined the bees, and found the boards covered two inches deep with dead bees. Don't let bees think they are imprisoned. I leave a good deal of ventilation at the bottom.

G. M. Doolittle. I have examined my closed hives, and found only five dead bees under one hive, and not more than a tablespoonful under another. I seal them up as tight as I can get them without sealing-wax.

N. N. Bettsinger. I winter bees out of doors, putting straw on the top, with a hood over the hole. The steam passes through the straw, and freezes the hood tight. This tight closing is continued from January to spring. The bottom entrance becomes frozen up, and the hive is almost air-tight, so far as I can see. My bees are wintered on honey gathered in September and October. I do not believe that bees can cluster on the honey without freezing. Bees can stand a low temperature, even when away from the cluster. When they die here it is because of moisture, not cold. There is less moisture in the cluster than in the honey-combs outside. I keep my bees out of doors, and sweep the snow around them, sometimes covering the hives.

Mr. Bacon. I have seen bad air burst from a closed hive in such quantity as to extinguish a candle. In opening the hives the bees were found to be dying fast. I want to know how bees can live in such air.

Vice President Alexander. I have in mind an instance in which bees, being much disturbed, generated heat enough to melt the comb and let the honey run down upon the floor. The bees were confined. I had a case of a ruined hive when closely shut in, and I think it came from lack of air.

Mr. Vandervort. If cold has caused the mortality among bees, why didn't it affect us years ago? I have known bees on the prai-

ries of Illinois which have withstood long periods of very cold weather and fixed winds.

A gentleman said: I think the more air the bees get the better they will go through the winter. I had a swarm with a season crack in the hive, standing in an old shed all winter, and they were in excellent condition in the spring. I think it is dampness rather than cold which kills the bees. I never had any trouble until within the last few years.

Mr. Elwood. The theory was advanced at the last Convention that carbonic acid gas settles in the bottom of hives. I have investigated the subject with care, and find the theory to be erroneous. The constant tendendency of gasses to diffuse and intermingle renders it impossible for the hive to fill in that manner.

AFTERNOON SESSION.

President Quinby called the meeting to order at half-past two, and briefly reviewed the points made at the morning session concerning winter care of bees. He said: There is need of ventilation, and need of quiet from excitement. Dysentery is produced by the cold. The continued chill prevents proper digestion, and the disease soon follows. To prove that dysentery does not result from the food, I will refer to a hive fed with sour honey which did just as well as the others. Another hive which I kept in a cold place and fed with the best food, were taken with the disease. I argue further, that in a warm, healthy state, the liquid part of the food is volatilized and passes into the air. In the disease the assimilation is faulty, and the fluid passes out as an excrement and causes the dysentery. I think temperature will be found to have more effect upon the health than the lack of ventilation. Keep the bees healthy, so that the excrement is dry when discharged. It is not well to let them out to discharge a liquid excrement, which they will do when chilled, but keep them in and keep them warm, so that the discharge may all be dry.

Mr. Ellsworth. The fact that dysentery can be brought on almost instantly, is quite a corroboration of the idea that it is caused by sudden chilling.

Mr. Bacon. Bees used to be handled far more carelessly some time ago than now, and were chilled more often; yet they did not have dysentery.

The time having arrived for the discussion to be closed, the next business in order, the selection of the place for the next meeting, was called up, and Utica was chosen. After some desultory remarks, the Convention adjourned to meet in Utica the first Wednesday in February, 1875.

We, herewith, present a table showing facts concerning the stocks and yields of some of our bee-keepers, as reported to the Secretary of the Convention. We believe this is the first publication of the kind which has been made in this region, and hope the beginning may lead others to furnish us with reports of their operations:

NAMES.	ADDRESS.	No. of Stocks.		KIND OF HIVE.	Am't of Honey.		Am't of Wax.	REMARKS.
		Spring.	Fall.		Box.	Extr'd.		
M. H. Tennent.	Stanwix, Oneida Co.,	37	42	Union Hive.	1,800	50	50	Frame Hive, 8 frames, 10x17.
C. D. Jones.	Kirkwood, Broome Co.,	12	25	King Hive.	500	100	3	Frame Hive, 10 frames, 12x13.
Solomon Vrooman.	Seward, Schoharie Co.,	50	66	Non-Swarmer.	3,500	500	100	Frame Hive, 7 frames, 15x15.
G. M. Doolittle.	Borodino, Onondaga Co.,	29	38	Swarmer.	1,650	700	20	Frame Hive, 9 frames, 10¼x10¾.
J. H. Nellis.	Canajoharie, Montgomery Co.,	37	43	Non-Swarmer.	1,349	589	11	Frame Hive, 8 frames, 10½x18.
Quinby & Root.	St. Johnsville, Montgomery Co.,	139	160	Non-Swarmer.	3,000	3,000	75	Quinby Hive, 7 frames, 20½x18½.
J. L. Scofield.	Chenango Bridge, Broome Co.,	18	40	Langstroth.	1,800	600		10 frames, 7¼x17¾.
John Vandervort.	Binghamton.	2	16	Langstroth.	Honey to Winter			9 frames, 9x17¾.
A. Baker.	Stittsville, Oneida Co.,	20	24	Box Hive.	200	500	12	Very dry season.
G. B. Seeley.	Syracuse.	18	25	Quinby.	800	100		Non-Swarmer, 7 frames, 16x10½.
R. Bacon.	Verona, Oneida Co.,	40	59	Variety.	2,300	800	70	Estimated.
E. W. Alexander.	Camden, Oneida Co.,	90	76	Quinby.				7 and 8 frames, 12¼x16½.
A. H. Root.	Palmyra, Wayne Co.,	12	18	Quinby.	240	300	20	8 frames, 17x10½.
H. Brown.	Frankfort Hill, Herkimer Co.,	12	16	Box.	80			7 frames, 10½x10½.
J. A. Burdick.	Smithville, Jefferson Co.,	14	21	Sisson Hive.	50	600		8 frames, 12x12.
D. A. Shaw.	Oriskany, Oneida Co.,	25	90	Box.	30		25	
Isaac Willmarth.	Deerfield Corners, Oneida Co.,	56	54	Box.	100			9 frames, 12x12.
N. N. Betsinger.	Marcellus Falls, New York.	60	98	Kidder.	6,000			8 frames, 9x14½.
Dr. J. R. Pratt.	Manchester, Ontario Co.,		30	Betsinger's Impr'd Variety.				Just commenced.

* * * A number of bee-keepers were unable to report. † The above report is estimated in part. Most of the stocks were in very poor condition in the spring.

For the American Bee Journal.

Wintering Bees.

In the experience related by Mr. Hester, in the AMERICAN BEE JOURNAL for February, I cannot recognize that in the cases reported there is bee-malady. Mr. Hester remarks, that in the autumn of 1868, one or two bee gums perished; the bees dying one after another, in November. Is it not probable that the colonies were queenless, and that the bees perished for that cause? In a normal colony, the place occupied by the queen is the central point for the bees to cluster. In a queenless colony, the bees, having no queen to keep them compact, the cold nights kill those which happen to be outside of the main cluster; and soon the number of bees is too much reduced to maintain the warmth necessary for their existence.

The surviving stocks were put by Mr. Hester in a room which was too much exposed to the effects of the external temperature. When the temperature of the room fell to the freezing point, and that accident, according to Mr. Hester, took place several times from November to the last of February, the bees were forced to eat more to maintain the temperature in their cluster, and of course needed to empty themselves; but as they remained four months in their repository, they got the dysentery. It is probable that the colonies would have been all alive in the spring, had Mr. Hester given them the chance of emptying their intestines once or twice in the course of their long confinement.

In the winter of 1870, Mr. Hester put ten stocks of bees in his cellar, and they wintered in fine condition. In the same cellar, in 1871, forty-three colonies out of sixty perished. This winter, twenty-seven colonies, put in the same cellar, in January appeared very healthy.

Nowhere can a bee-malady be proved by such facts. Certainly the unevaporated honey, which the bees of 1871 had to eat, was one of the causes of the death of the forty-three colonies; but the warmth of the cellar was very apt to help in the bad result. A cellar which, with ten or twenty colonies, is of a suitable temperature for the wintering of bees, can be too warm, if there are sixty stocks heaped up in it. The bees become restless: fatigued by their exertions, they eat too much, and they die of dysentery.

But there was neither bee-malady, nor bad honey. In the first case, there was too much cold; in the second, there was unevaporated honey not fit to winter bees, unless they can go out sometimes to empty their intestines; and probably too much warmth for them to remain as quiet as it is necessary for their health in winter.

CH. DADANT.

Hamilton, Ill.

For the American Bee Journal.

Do Bees Injure Fruit?

MR. EDITOR: Last fall I wrote an article, under the above heading, to the New York *Tribune*, in which I stated my observations, and censured that wise (?) Professor Riley for his bee-destroying recipes and advice. But they did not see fit to publish it.

Perhaps Prof. Riley knows all about bees; so did Agassiz, and yet we know he was in error, when speaking about swarming, comb-building, etc.

Had Prof. Riley made close observation, he would have found that bees do not puncture fruit, and would have had no occasion to publish his ignorance, by giving his cobalt recipe. He would have benefited mankind a great deal more had he taken a dose of the mixture himself, for I think we can spare such professors better than the bees he has caused to be killed.

This fall I took a bunch of Delaware grapes (the most tender variety we have here), and put it on a hive, directly over the bees, and watched proceedings; but not a single berry was opened; then I broke a few berries, upon which they went immediately to work, sucking them dry, thus showing that something besides bees does the mischief.

Now, if bees were so destructive to fruit as some try to make out, how is it that so many are kept in Germany, France and Italy, where fruit, especially grapes, is so extensively raised? They know that bees are beneficial to

fruit culture, and bee-keeping is encouraged instead of persecuted.

In Italy there is a law regulating the size of hives and frames. If the bees destroyed fruit, there would have been, in those countries, laws enacted long ago to prevent their being kept. And, further, if bees destroyed grapes, would they not do so every year, and not some years only, as several writers state in Report of Agriculture for 1871? It may be said that bees do not work on the same flowers every year (linden and buckwheat, for instance), but that is because they secrete no honey, but grapes always contain juice.

But no matter how foolish and groundless a theory is, it will have some supporters. H. O. KRUSCHKE.

Berlin, Wis.

For the American Bee Journal.

Notes on Wintering.

So many different and conflicting theories have been advanced regarding this branch of our science, that I feel it must be approached with caution. The reason for this caution should be apparent to each of us who may care to instruct our brother bee-keepers on the subject before us. And why? That which will suit us in Pennsylvania may be greatly at variance with both the practice and interest of those residing in Iowa or Minnesota, or even those in Tennessee or Kentucky. The effect of the climate, the amount of honey gathered in the fall from natural sources in the various localities, and many other things should be taken into consideration if we attempt to solve the problem of the "successful wintering of bees."

I doubt not but that in the higher latitudes, a carefully constructed wintering house should be the prominent object of the bee-keeper; and even with us, it may prove an important auxiliary, but after many years of careful observation and experiment, I have concluded that he who will lead us to success by giving us a complete system of *out-door wintering* will be considered our greatest benefactor. With this object carefully in view, I have made the most of my experiments in relation to this matter. A few of them, with your permission, I will give to your readers.

On the 17th day of November, I prepared my hives for winter (it should have been two weeks earlier), having previously cut winter passages in all the combs. I use the Langstroth hive almost exclusively — the double hive. I packed at sides with either dry leaves or old rags, and the caps with clean straw. I removed the honey boards from nearly all the hives, and in their place I put a box frame of proper size, made of plastering lath, and covered with burlaps or common bagging. This frame I filled with clean straw, left about one inch ventilation in front for the flight of the bees, and left the back ventilator in the cap open. Permit me here to say, that for wintering purposes I prefer the single hive, made of one and one-half inch stuff, to the double hive.

On examining stocks packed as described, I find at our lowest temperature (eighteen degrees) this winter, that the bees remained at the top of the frames among their stores. I have tried various coverings for the frames, cotton and woolen quilts, heavy paper, dry leaves, corn-cobs, etc., etc., but find nothing equal to the box frame filled with straw, except, perhaps the corn-cobs; these appear to be the best absorbents of moisture, and at the same time afford the most complete ventilation of the hive.

These are the only preparations I have made this winter, with the exception of the fact that I have covered every hive with light boards to protect them from rain and snow. This I also do in the heat of summer to protect them from the sun.

As I hope to give you further notes on this subject, I will close this already too long communication. "B"

Beaver, Pa.

For the American Bee Journal.

What Gallup has Seen.

We have seen a stock of bees wintered under the following circumstances: They were in an old fashioned straw hive; confined in the hive, and set on some loose boards directly over the fireplace in a log dwelling-house, where

there was a fire kept day and night. In this case they bred all winter, and had no dysentery. Again, we have seen bees wintered, both in Canada and Wisconsin, in the Weeks hive, suspended two feet from the ground, with no protection from winds or weather, and the bottom-board suspended to the bottom of the hive, with one inch space all around the bottom of the hive. On this plan, also, the bees did well and had no dysentery. We have seen hives set on top of a stump, raised on inch blocks from the bottom-board, exposed to wind and weather with the thermometer forty degrees below zero at times during the winter, and no dysentery. We have seen bees in box hives, with a two inch hole in the top, the hive set on top of a stump exposed to wind and weather, two inch hole protected from rain and snow, bottom closed up tight, and no dysentery.

These were all single cased, or single boarded, hives, and, strange to relate, all wintered on their own stores — no coffee sugar or sugar syrup. It would seem that the Almighty, according to some theories, made a grand mistake in not making bees so that they could make their own sugar syrup, if honey was not intended for them.

We have seen twenty-five stocks wintered in a dry, warm room in the cellar, with cement floor, and kept so warm that they bred all winter. These were box hives, turned bottom up, with bottom-boards removed; and no dysentery. We might go on enumerating cases like the above.

If we understand Mr. Hosmer, his small stocks breed all winter and come out strong in the spring, etc. It has been remarked, that extra smart bee-keepers cannot stop to theorize; but we must be allowed to theorize, for it was by comparison, or theorizing, that we gained our present knowledge in the business. Our theory is, that bees kept perfectly dry, as in the above cases, discharge the excremental portions of their food in small and perfectly dry pellets, or, in other words, all moisture is entirely evaporated from the excrement while in the abdomen of the bee, and then their discharge takes place in the hive, and lies on or in the bottom of the hive without any detriment to the colony whatever.

Such colonies, in the above condition, do not show any specks on the snow in their first flight. Their abdomens never show any distention or enlargement from the retention of excrement. Of course, old bees die of old age in the hive, but they are all perfectly dried up, no mistake about them whatever. But in a damp cellar, if our bees breed, we always have to set them out occasionally, for the young, or pollen consumers, to have a purifying flight.

E. GALLUP.

Orchard, Iowa.

For the American Bee Journal.

The Use of the Extractor.

In my article on "How to Feed and Winter Bees," in the January number, there are several mistakes.

In the first sentence the word *keeping* should be *feeding*. I did not mean to say that honey from other *hives* often proves fatal to the bees, but that honey from other *sources* often does, when the bees have been long confined to their hives. Nor did I mean to say that bees should never be fed much more syrup than they would consume in preparing food for their young, but that when feeding expressly for the purpose of propagating bees, care should be taken not to give them much more syrup than they would consume in preparing food for the young larvæ, and for constructing combs for the brood when necessary. When there are more bees in the hive than are necessary for rearing all the brood the queen is capable of producing, they may be fed more, if suitable room is given them in which to store surplus honey, so as to prevent them from filling up the brood combs with syrup instead of brood.

I would also say that when there is found to be more honey in the brood combs in the spring than is necessary for the colony in rearing brood, it should be removed with the extractor, leaving honey only in the upper part of each comb. A good way of converting this surplus honey into combs and brood, is to insert an empty comb-frame in the central part of the brood nest as early

and as often as the bees can properly occupy and fill them without danger of chilling the brood, or checking its development. By this method, with a strong colony of bees and proper care, brood and combs will be produced rapidly in the spring, particularly during fruit blossoming. By this means, the colony may be made very populous, kept from swarming, and the largest possible amount of honey secured from the hive. If honey in the comb is preferred, then at the close of the main honey season feed the bees the extracted honey, or good sugar syrup, giving them all they will use while being fed.

A. T. WRIGHT.

Kokomo, Ind.

For the American Bee Journal.

Review of the January Number.

Whilst reading the article on "Feeding Bees," page 7, I notice that the writer recommends the "most refined grades" of sugar. Now in this I beg leave to differ with him for the following reasons: In past years we have fed nearly all the various grades of sugar in the market, watching the result closely, and find that the "most refined grades," such as coffee A, loaf-sugar and crushed, are too much inclined to crystalize in the comb-cells and on the vessel wherein the syrup is used, and not one of the grades named seemed to be any better than coffee C, which, in fact, is better for bees, because less inclined to crystalize; it also costs less, is more readily dissolved, and readily taken by the bees. The various grades of brown sugar should not be fed, as the syrup is more liable to ferment. The writer further says: "Molasses or sorghum should never be used." I see no objection to the bee-keeper using them, but I have so far failed to induce my *bees* to use them in any shape.

Not too much can be said in favor and on the manner of spring feeding to stimulate breeding; many overdo the thing and have the brood-cells stored with syrup. Another portion of bee-keepers underrate the value of supplying their bees with meal or flour, and many of our western bee-keepers express their willingness to supply meal, did not our high winds blow it away. Again the want of water in the hives, when cold days prevent the bees from getting it, causes a check in breeding, and very frequently the young worm, just hatching, perishes because the nursing bees cannot obtain the necessary water to prepare the food for the larvæ. To obviate this we have experimented for years to produce a feeder that will enable us to furnish bees in their hives, with syrup, water, or meal, until we have at last succeeded in perfecting it.

On page 8, we find a description of "Adam Grimm's Bee-feeder." As that article might lead some of its readers into trouble, it may not be amiss to state that the feeder was patented May 6, 1873; the perforated screw cap, and projecting rim forming specific features in said patent. If the patent was all owned by myself the "trouble" above named would not be very serious; but over one-half of it has passed into other hands.

As a contrasting item on "The Wings of Bees," page 9, I would say that I have an imported Italian queen bee that has had both of her wings clipped close to her body as a special mark, and this for *five* seasons; and last year she was one of the most prolific queens in my yard. If she lives another year she will do well as a specimen without *lungs*. But what is the use of lungs or their equivalent, if bees can live without air, as Mr. Adair stated some years since?

Coburg, Iowa. E. KRETCHMER.

Care of Honey Bees in Winter.

MANY successful apiarians contend that there is no better way to winter honey bees, than to allow the hive to remain isolated in the yard where they have been kept during the summer and autumn; and they point to their success in many years past for reliable evidence to corroborate the correctness of their assertion. The fact that honey bees have been kept satisfactorily in the foregoing manner, does not prove that such a practice can be recommended as the best under all circumstances; for hundreds of apiarians have attempted to

keep their bees without proper protection during the winter, and have lost nearly every skip. There is one fact in which all intelligent bee-keepers will agree, which is, that a colony of bees will pass the winter best when the hive is kept in a location where the temperature will not be rapidly affected by the rapid transitions from warm to very cold, and *vice versa*. One thing in particular should be guarded against, which is this: No hive should be placed where it will be exposed even for a single hour to the rays of the sun. When a hive stands in the sunshine for a few hours, the walls will be warmed up, the little workers will be enlivened and the pleasant outlook will invite thousands of them to spread their wings and fly away to the fields. But, before they have flown a hundred yards, they are frequently chilled to such an extent that they drop to the ground and perish, as they cannot recover sufficient strength to return to their homes. This teaches the eminent importance of guarding every hive from the fury of fierce winds and also from the cheerful sunshine. When the hive is in an isolated place it needs a cover to turn the rain and snow, and boards, rails or brush placed on every side to obscure the light of the sun and to break the force of a cold wind. So long as the bees are kept in the shade, well protected, where they can discover little or no light, the temperature of the interior of the hive will be more uniform, and only a limited number will escape from the hives and perish.—*N. Y. Herald.*

Ventilation.

Bees require honey in winter to keep up animal heat—the carbon of the honey is burned in the body of the bee as coal burns in a stove. If the hive is too cold, the bees will be found to flap their wings in the cluster and thus increase their heat as man does by clapping his hands in cold weather. This requires just so much more expenditure of honey as food. Dr. Carpenter, speaking of an experiment, says a bumble bee was found to produce one-third of a cubic inch of carbonic acid in the course of a single hour, during which its whole body was in a state of agitation, from the excitement consequent upon its capture, and yet, during the whole twenty-four hours of the succeeding day, which it passed in a state of comparative rest, the quantity of carbonic acid generated by it was absolutely less.

From these considerations, it is manifest that unnecessary loss of heat is exactly equivalent to unnecessary loss of honey; the walls of the hive, therefore, should be as non-conducting as possible, and in order to make these the most non-conducting, they should be kept dry. Ventilation is a most important means of keeping the walls dry. This will be seen if we consider the fact that heated air has a much greater capacity to absorb vapor than cold air, and that the vapor thus absorbed rises. Now if there be an escape for this vapor at the top of the hive, the air heated inside the hive by the bees will pass off charged with moisture, and thus leave the inside dry. And the admission of air at the bottom will bring cool air, which when heated by the bees will absorb the moisture and pass it off at the top, and thus by a circulation keep the inside dry, and warmer than if this moisture were retained.—*Live Stock Journal.*

Letter from Miss Anna Saunders.

Mr. Editor: I have just reached home after an absence of several weeks and find many letters applying for seed of the sage tree, and information concerning it. I am sending the seed to all applicants, but will answer most of the questions through the Bee Journal, as they seem to be of general interest.

This tree was grown from a cutting and commenced blooming about the second year. I have never known it to be cut down, or injured by cold weather, as many of our tropical plants are; so, I think that with careful cultivation during its early years, it may adapt itself to your climate. I do not know whether it is honey or pollen, or both, that the bees get from its blossoms. It commenced blooming about the 1st of last July.

Peaches, plums, &c., are in bloom now (Feb. 9), and my bees are exceedingly busy. They are carrying in loads of pollen, and, I suppose, honey, but I have not examined the hives to see, fearing the little baby bees would be chilled. The mercury has been 62° the greater part of to-day. Will some wise bee-keeper tell us what is the lowest temperature at which it is safe to open hives out of doors?

Woodville, Miss.

American Bee Journal.

W. F. CLARKE, EDITOR.

CHICAGO, MARCH, 1874.

Italian Bees.

Joseph Barlow of Blackheath, Ont., asks:—"What is your opinion of the Italian bees? Are they more profitable than the common or black bees? Some say they are and some say they are not. I have the common bees, but if the Italians are better, I should like to get them."

The unanimous opinion of all bee-keepers competent to judge, is that the Italians are vastly superior, in several important respects, to the common or black bees.

1. They are better honey-gatherers. This is the main excellence to secure in bees. We keep them for the stores they will collect, and our profits come from the excess of what they treasure up after supplying their own wants. What percentage more of honey they will gather, over and above the average of what the black bees will do, has never been ascertained, but it has been sufficiently demonstrated, that they are more active and energetic workers, that they will go out on foraging expeditions during weather which confines black bees to the hive, and that they will gather honey from sources not accessible to the black bee.

2. They are more quiet and peaceable. This is a very important point, inasmuch as it is essential to the best success in bee-keeping, that the bees should be freely handled. Artificial swarming, change of queens, extracting honey, putting on and taking off boxes, and a variety of other occupations, necessitate access to the interior of the hive, and render it desirable to have bees to deal with, that do not easily become irritated and infuriated. It is frankly admitted that the Italians, when once made angry, are worse to contend with than the common bees, but there is no need to enrage them, and they are not easily provoked. When a hive is opened, the common bees incline to rush out pell-mell, while the Italians cling to the comb, and remain quiet. With care, an Italian stock can be handled as well without smoke, as common bees with it. The utmost gentleness is requisite at all times in doing anything among bees, and if this is practised, it is remarkable how amiable the Italians will behave. Occasionally things will happen calculated to try the temper of most peaceably inclined bees, just as the gentlest of human beings will sometimes be exposed to provocation. But, under ordinary circumstances, the Italians will be found much more pacific than the common bees.

3. They are less liable to be infested with the moth. For some reason or other, the black bees more readily succumb to this insect pest, than the Italians. Possibly it is because of the untiring energy and resolute determination of the Italians. The moth is a stealthy, insidious enemy, burrowing in secret, and worming itself into possession of the sheets of comb, but an Italian colony of average strength, will hunt them out and prevent their making headway. Many bee-keepers who, when they kept the common bees, were greatly pestered with the moth, testify that on substituting the Italians, this annoyance came to an end.

4. They are more handsome. It would be foolish to sacrifice more substantial qualities for mere beauty, but, other things being equal, it is natural and proper to prefer that which is beautiful to that which is plain and homely. The Italian bee is a more genteel and shapely insect than the common bee, while its golden-banded jacket looks very attractive, whether glittering in the sun, or covering the sheets of comb. The queens of this breed are often very beautiful. Just as our best breeds of horses, cattle, sheep, swine and poultry are better looking than the common varieties, and please the eye more, while their nobler qualities commend themselves to the judgment, so it is with the Italian as compared with the common bee.

For these reasons, we certainly advise our correspondent to get the Italians. As a change of breeding stock only, they are worth the trifling outlay necessary to obtain them. There has naturally been very close breeding "in-and-in," as it is termed, among bees, and analogy suggests that this cannot fail to be

detrimental. The importation of Italian bees has been worth all it has cost to the bee-keepers of this continent, in this view of the matter alone. The pioneers in this direction were at considerable cost, and have not reaped so rich a return, as those who are indebted to them for bringing this valuable breed of bees within general reach. Five dollars per queen, the average price, is by no means a large sum, when the possible benefits are taken into account. By judicious management, a single queen may be made to Italianize a moderately sized apiary in the course of one season, thereby doubling the value of every hive it contains.

While on the subject, we may as well mention, for the information of the novice in bee-keeping, and the general reader, how the process of the Italianizing is accomplished. As all the eggs in a hive are laid by a single queen, it is only necessary to substitute an Italian queen for the common one, to accomplish the change of breed. It is usual to remove the common queen a week before her successor is introduced, by which time, queen cells will be far advanced. By cutting these out, all possibility of the bees rearing another black queen is destroyed. They will then more readily accept a strange queen. There are various ways of introducing queens, but the safest, especially for beginners, is to cage the queen about thirty hours, and fix the cage so that the bees can have free access to it. They will soon get reconciled to her, acquainted with her, and will feed her. After about the length of time specified, it will be quite safe to liberate her. When there are several hives to Italianize, the new queen must raise a supply of drones, and the black ones must either be destroyed or confined to their hives to prevent their mating with the young queens. This is the great difficulty in transforming stocks and keeping them pure. As bees mate when on the wing, there is a constant liability of the queens meeting common drones. A single hive is soon and easily Italianized. Bees in the summer time are very short-lived. Within three months after the introduction of an Italian queen scarcely a black bee will be seen in the hive. Italianizing several stocks with one queen, is a work of more time and difficulty.

Newspaper Decisions.

1. Any person who takes a paper regularly from the post-office—whether directed to his name or another's, or whether he has subscribed or not—is responsible for the payment.

2. If any person orders his paper discontinued, he must pay all arrearages, or the publisher may continue to send it, until payment is made, and collect the whole amount—whether the paper is taken from the office or not.

3. The courts have decided that refusing to take newspapers and periodicals from the post-office, or removing and leaving them uncalled for, is *prima facie* evidence of intentional fraud.

Clubbing Bee Journals.

Several of our subscribers have requested us to say what we will club with other Bee publications for. We therefore quote the following:

The AMERICAN BEE JOURNAL and the "National Bee Journal," by Mrs. Tupper, for $3.00 a year in advance.

The AMERICAN BEE JOURNAL and either "The Bee-keepers' Magazine," or the "Agriculturist," by H. A. King, for $2.50.

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To Those Interested in Bee Culture.

At the sixth annual meeting of the Michigan Bee-Keepers' Association, it was decided to hold a special meeting at Kalamazoo, to commence Wednesday, May 6, 1874. It is especially desired that all members be present, and, in behalf of the Association, we urge every Bee-keeper in Michigan to attend. A cordial invitation is also extended to all persons interested in the science of Bee-culture whether residing in this or other States. Surely much good may be derived from a comparison of experiences next spring, and from the able papers that will then be presented. Timely notice will be given of all further arrangements. Address communications or inquiries concerning the subject to

FRANK BENTON, *Sec'y.*

Shelby, Oceana Co., Mich.

Voices from Among the Hives.

E. S. FOWLER, Bartlett, O., writes:—"Bees in this part of the country were all wintered on their summer stands, without protection, seldom being confined to their hives more than six weeks without a chance to fly, and not that length of time more than once during the winter."

T. J. DODDS, LeClaire, Iowa, writes:—"My bees have now been in the cellar sixty-three days; all quiet; no signs of dysentery. The thermometer ranges from thirty-four to thirty-eight degrees."

WM. FAULKNER, Vevay, Ind., writes:—"Bees are wintering well here; no disease so far."

E. GALLUP, Orchard, Iowa, writes:—"Bees are wintering finely thus far. My bees are on their summer stands. They had a splendid flight yesterday. Those in the cellar are in excellent condition. No danger of bee disease in a mild winter, unless they have very bad management."

A. I. ROOT, Medina, O., Writes:—"In reply to the lady's query, on page 47 of the last JOURNAL, I would say, we have never found the honey that seemed to disagree with the bees when *confined to their hives by winter weather*, deleterious to the human family at all; on the contrary, it is oftentimes the very best table honey. I never intended to convey the idea that the honey was *poisonous*, only that it seemed to disagree with the bees some seasons; and that sugar-sprup was uniformly healthy for them. We never get bad tasting honey here, but a friend sent us a sample from a distance, saying it would kill bees at any season. It tastes like poor sorghum syrup. We have never had any experience with such honey, but have had bees die badly in March, when fed on very nice, sealed clover honey." "NOVICE."

W. F. STANDEFER, Dry Grove, Miss. writes:—"Bees are doing well. Three or four combs of hatching brood, and a few drone cells are observable."

W. S. BOYD, Bethany, O., Writes:—"I have been engaged in the bee business for three years, and when last spring opened, I had only one hive with bees in it, but had invested $92. I bought three hives for $8.75, and now I have seven, and have sold near one hundred pounds of honey. With the aid of your paper, and the knowledge I have gained (which I consider worth more than I have spent for the bees), I intend this spring to buy all the bees I can get at a reasonable figure; and by the use of the extractor, to have something to report to you next fall decidedly in commendation of the bee business."

THOS. J. CORNELIUS, Ludlow, Ky., writes:—"All the bees in this part of the country are doing finely this winter. We have had no dysentery, and none in prospect."

D. I. WELLS, Boliver, Tenn., writes:—"My bees have increased quite rapidly. I started last spring with four black stocks, which increased to ten, and three Italian, which increased to twelve, and one went to the woods. One Italian stock, purchased of Dr. Hamlin the spring before, sent out a swarm on the 11th, another on the 13th, and another on the 22nd of April, some of which sent out one or two swarms, but no surplus honey. Is there any remedy for such behavior? I suppose my bees are all in good condition, as they are flying very freely every warm day, which occurs in our locality every week or two during the winter."

H. E. CURRY, Walnut Hills, Cincinnati, writes:—"Bees in this neighborhood are doing well. To-day (Jan. 21), the thermometer rose to seventy-four degrees in the sun, and of course our bees had a good fly—the second this year. The previous one was on Jan. 4. My bees never looked so well at this time of the year, and I have no doubt we will begin the season with every encouragement. Last spring I tried an experiment, at least it was such to me, although the same thing is done in Germany. I found, on examining what was left of my apiary, one hive very weak. I will not pretend to say how many were left, but it was a sorry sight. I first made a box six or eight inches deeper than a one story Langstroth hive, and after putting six inches of manure in the bottom, I set my weak hive in, and then packed the sides and back with the same, so that it was surrounded with manure, except the front. I then put a blanket and mat on the top, and then left it undisturbed. In a few days, on looking into the hive, I was surprised to find what a number of eggs the queen had laid. The decomposing manure generated such a heat, that she did not have to confine herself to just such space as she had bees to cover. In a few weeks it was my strongest hive, and gave me the largest return of any stock I had. I took two hundred pounds extracted white clover honey from it, besides a swarm artificially, and, on November 16, they had at least twenty-three pounds to winter on. Although it will not do to jump at conclusions too suddenly, more especially in bee-culture, I am convinced that those who have weak stocks, in the spring, will find the above a great help with but little trouble. Of course enough of bee-bread and honey, and upward ventilation must be given, otherwise the combs will mould."

H. NESBIT, Cynthiana, Ky., writes:—"Last winter I lost sixty-seven out of seventy colonies, and the three left were mere handfuls.

I bought six small black colonies in June, and now I have twenty-six in good condition, all Italianized. They are now carrying in two gallons of flour daily. Bees are wintering as well as I ever saw them. I have abandoned the bee-house and winter my bees out of doors."

D. D. PALMER, Eliza, Ill., writes:—"The seven diseased hives which I had, are now (Feb. 7) all dead, and fifteen more are diseased. I have seventy-eight left; the most of them look well."

JOSEPH M. BROOKS, Columbus, Ind., writes:—"My seventeen colonies of bees are in the cellar, wintering on sugar syrup exclusively. All are in the best condition, so far."

G. E. CORBIN, St. Johns, Mich., writes:—"By actual measurement, I find that fifteen worker brood-cells made by black bees, span three inches; while fourteen worker brood-cells made by Italian bees, span the same distance. That is, nine square inches of surface of brood-comb made by black bees, contain two hundred and twenty-five cells; whereas, the same surface of brood-comb made by Italian bees, contains only one hundred and ninety-six cells. Does not this difference in the size of the cells indicate a corresponding difference in the size of the bees? I believe the usual process of Italianizing supplies the queen with the combs of black bees only. Is it, therefore, possible to rear full-sized and perfect Italian progeny in those cells? If so, what sized cells will they, in their turn, build? Will some one of experience answer these questions?"

EDGAR MCNITT, Centre Village, O., writes:—"My bees have done very well the past season. I am able to report an average of about fifty pounds of honey to the hive. One hive, furnished with empty combs, gave me three swarms and eighty pounds of honey. Including the increase in swarms, my nett profit for the season was one hundred and twenty-five per cent. Last year I wintered two swarms, one on sealed, the other on unsealed honey, and both came through in good condition. I had a swarm of half-bloods that died while I was trying to Italianize them. There were no signs of dysentery. To ascertain that the honey had nothing to do with their death, I procured a starved swarm, and put it in the depopulated hive without cleaning it out in the least, and the bees flourished as well as any of my other swarms."

JONAS SCHOLL, Lyons Station, Ind., writes:—"I am somewhat in doubt as to the best way of doubling colonies. In the past two years there has not been very good success in this region in the method of taking full frames from a hive to be doubled, and filling out with empty ones. It seems to cut the hive in two. The queen often will not cross the empty space, but remains on one side of the hive. On the opposite side the combs will be filled with honey as fast as the brood hatches, while the new comb built on that side, will most likely be all drone comb. As a strong colony, with a prolific queen, when placed in an empty hive, builds comb rapidly, if the yield of honey is good, may we not conclude that when comb is to be built for all the increase, the best plan is to divide the bees only, not the comb? Bearing in mind that in this locality very little comb is built before May 15, and after June 25, will some practical bee-keeper give us the benefit of his knowledge on this subject? Bees are wintering finely here."

B. G. FORBUSH, Algona, Iowa, writes:—"I am but a novice in bee-culture. One year ago next April, I purchased twenty stands of bees. During the early summer of last year, I increased to forty stands, by artificial swarming. I am surrounded with basswood, but there was a total dearth in its bloom. About the first week in July, I was surprised with the sudden filling up of every available cell of my hives with a very thin, washy, acrid honey, which proved to be sumac honey. I was nonplussed, and wrote to Mr. Gallup in regard to it. He advised me to extract it, and keep it for feeding purposes. I had no sooner begun to follow this advice, when, to my surprise, it was evaporated to a fair consistency, and after six months I find it much less acrid, and good for table use. The months of August and September were gay with golden-rod and many other wild flowers. My hives were soon filled with honey of the best quality, and the hives were literally stuffed with bees and brood. In view of what Prof. Cook says about late brood, I tremble, for there was no speck of brood in my hives after the 15th of September. But I carried my hives into winter quarters full of honey, and populous with bees. I put thirty-two stands in the cellar, with from three to six inches of air-space under the combs, and heavy, white ducking over the frames according to Mrs. Tupper's plan. They are in good condition. I took out about three hundred pounds of surplus honey. Nine "New Idea" hives were left on summer stands, banked up with snow, *a la* Gallup. From this, my first year's experience, I prefer a four thousand inch hive."

JOHN WAHL, Greenfield, Ill., writes:—"Last season I went into winter quarters with forty-one hives, coming out in the spring with twenty-six. I had only four swarms winter on the summer stands. I use the Langstroth hives, of thirteen frames. The last four seasons have been so dry that we have had no flowers out of which to make honey, and so, whatever the breed of bees or the kind of hive used, our failure has been unavoidable."

American Bee Journal.

THOMAS G. NEWMAN, MANAGER.

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Honey Markets.

CHICAGO.—Choice white comb honey, 28@30c; fair to good, 24@28c. Extracted, choice white, 14@16c; fair to good, 10@12c; strained, 8@10c.

CINCINNATI.—Quotations from Chas. F. Muth, 976 Central Ave.

Comb honey, 15@35c, according to the condition of the honey and the size of the box or frame. Extracted choice white clover honey, 16c. ℔ lb. Choice extracted honey, 16@18c. ℔ lb.

ST. LOUIS.—Quotations from W. G. Smith, 419 North Main st.

Choice white comb, 25@29c; fair to good, 16@22c. Extracted choice white clover, 16@18c. Choice basswood honey, 14@16c; fair to good, extracted, 8@12c; strained, 6@10c.

NEW YORK.—Quotations from E. A. Walker, 135 Oakland st., Greenpoint L. I.

The sale of honey is dull here, and a large quantity is now upon the market. The prices rule as follows:

White honey in small glass boxes, 25c; dark 15@20c. Strained honey, 8@12c. Cuban honey, $1.00 ℔ gal. St. Domingo, and Mexican, 90@95 ℔ gal.

SAN FRANCISCO. — Quotations from Stearns and Smith, 423 Front St.

Choice mountain honey, in comb, 22½@25c; common, 17@20c; strained, 10@12c, in 5 gallon cans. Valley honey, in comb, 12@17c; strained, 8@10c.

Eight cents is now the fee for registered letters—instead of fifteen cents, as heretofore. Let all register, who cannot obtain a money order, but let none register who can.

Persons writing to this office should either write their name, Post-office, County and State plainly, or else cut off the label from the wrapper of their paper and enclose it.

The postage on this paper is only twelve cents a year, if paid quarterly or yearly in advance at the post-office where received. We prepay postage to Canada, and require twelve cents extra.

Publishers needing cuts or engravings, will do well to address the Manager of the American Publishing Company, who have a large supply for sale that have appeared in "The Illustrated Journal."

Should any subscriber wish to discontinue taking our JOURNAL, he should address a letter to the Manager, and enclose the amount due, and it will then cease to visit him. Any other course is dishonorable.

Any one having paid $2.00 for the AMERICAN BEE JOURNAL for 1874, and desiring to obtain the "Illustrated Journal," for 1874, and our magnificent Fruit Chromo, may send us $1.50 more, and obtain them.

New Advertisements.

C. Root wants some brood combs.

J. A. Buchanan offers his Tested Queens for $3.00 each.

Barker & Dicer offer $500 for a competitor to their Honey Box.

H. Alley would have all send for his Queens and warrants them to arrive safely.

T. N. Hollett mentions his Queens, and wants you to send for his circular.

The *Poultry Journal* claims attention, and will visit our readers for $1.00 a year.

The Buffalo Embossing Press will be supplied at manufacturer's price, at this office.

James J. H. Gregory offers seed for granges, and illustrates his cabbage advertisement with a handsome cut.

D. Burbank intends to move to Minnesota, and has a large sale of bees and hives advertised for the 18th inst.

The Fruit Recorder and Cottage Gardner is offered at $1.00 a year. Will club it with the AMERICAN BEE JOURNAL for $2.50.

J. H. Thomas, of Brooklin, Ont., makes liberal offers for some watches that the editor writes us he knows to be well worthy of recommendation.

J. W. Winder & Co.'s new Honey Extractor occupies our last page. Those interested in this new candidate for public favor, have the facility now of examining it, and reading its description.

In D. A. Pike's advertisement of "Italian Bees and Queens" for sale, in the February number, his address was incorrectly given. It should have been, Smithsburg, Washington Co., Md.

☞ We will club the AMERICAN BEE JOURNAL with A. M. Purdy's *Fruit Recorder and Cottage Gardner* for $2.25.

On the Pacific Coast, we are informed by Stearns & Smith, they have had twenty inches of rain, and the season is very late and cold.

We do not want any more back numbers of Vol. 9, but will pay 50 cents each for fifty copies, more or less, of Vol. 2 No. 1, July, 1866.

Langstroth's patent on movable-frame hives expired last year. There is now no patent covering movable frames—all such are public property.

Hereafter we shall mail a Printed Receipt to everyone sending money to this office.—Those who do not get such Receipt by return mail, should notifiy us, that we may ascertain the cause of delay.

Many valuable communications from old and reliable contributors which were prepared for this number of THE JOURNAL, are crowded out by the long, but interesting, reports of the conventions that have taken place during the past few weeks. They may be looked for in our next issue.

BINDING.—We have been requested to get sets bound for some of our subscribers, and have made arrangements to get the nine Vols. bound in three vols. for $4.00, or the same in four vols. for $5.00. Those who wish to avail themselves of these liberal terms must send their numbers by express to the Manager.

There are many inquiries now concerning honey localities. We should esteem it a favor, if those who deem their localities good ones for bee-culture, would send us descriptions of the different honey plants and trees, and other advantages which may be found in their neighborhoods, for publication in the BEE JOURNAL.

Prominent Apiarians all recommend the first volume of the AMERICAN BEE JOURNAL as the most valuable work on apiculture extant, and those who have not perused it should procure it at once. We have them bound in pamphlet form, and sell them at $1.00 each. Postage 8 cents. Or bound in cloth boards for $1.25. Postage, 20 cts.

We have made arrangements for a department of "Notes and Queries," under the superintendence of the experienced apiculturist, Mr. Ch. Dadant, of Hamilton, Ill., to be commenced in the next number of the AMERICAN BEE JOURNAL. Also another department for Beginners, under the management of Prof. A. J. Cook, of Lansing, Mich. "Excelsior" is our motto.

It may be an item of interest to bee-keepers to know that Rev. L. L. Langstroth, who has done so much to promote a true knowledge of the business of apiculture, is no longer to be numbered among those who pursue the occupation. He has sold out his entire stock, to the last colony. The state of his health forbids him to engage longer actively in the business. He has earned the right of retiring.

KING'S PUBLICATIONS.—The *National Agriculturist* is received. It is practical and entertaining, and is published at a very low price. Those who want a good agricultural paper, at a low figure, should get Bro. King's. King's *Bee-Keepers' Magazine* is devoted to apiculture exclusively, and has many good correspondents. We will send either of these publications, with the old and reliable AMERICAN BEE JOURNAL, one year for $2.50; or all three for $3.00.

Large Sale of Bees and Hives.

Having determined to move to Minnesota, I offer at **public sale,** on the

18th OF MARCH, 1874,

At my residence near Lexington, Ky.,

FIFTY OR SIXTY COLONIES

—OF—

ITALIAN AND MIXED BEES,

In Langstroth Hives.

I have taken great pains to have the combs built straight and kept free from a redundance of drone cells. My bees are in **first rate condition,** and it is a rare opportunity for those desirous of buying bees in the spring. I will sell at the same time a large lot of

NEW HIVES,

Surplus Honey Boxes and Frames,

A Honey Extractor, Wax Extractor, a Light Spring Wagon, Buggy, Rockaway, Household Furniture, &c.

Until the day of sale I will dispose of any of the above articles privately, low for cash, or for Live Stock.

D. BURBANK,

Lexington, Ky., February 19th, 1874. mar74m1

SAFE ARRIVAL GUARANTEED!

E. J. WORST,

BREEDER OF

Pure Italian Queen Bees

At Reduced Prices for 1874.

One Queen,	Tested,	$ 3.50
" "	Untested,	2.50
Three "	"	7.00
Six "	"	12.00
One Queen sent soon as fertile,		1.50
Five "	" " "	5.00

All Queens warranted as represented, or another sent soon as possible. Orders solicited, Give Post and Express office.

E. J. WORST,

feb74tf Ashland, Ashland Co., O.

QUEENS FOR 1874.

THIRTEEN YEAR'S EXPERIENCE IN PROPAGATING.

I SHALL Breed direct from Imported Mothers, and guarantee purity and safe arrival to purchasers. The price will be very low. Send for my Circular.

WM. W. CARY,

feb74tf Coleraine, Franklin Co., Mass

FOWLS AND EGGS.

I MAKE a specialty of White Leghorns, Light and Dark Brahmas. Three yards, each variety. Bred and mated with much care.

Also **Tested Italian Queens,** bred from imported mothers, at $5.00 each.

Address J. A. BUCHANAN,

mar74m3 Wintersville, Jeff. Co., Ohio.

1874 ITALIAN QUEENS. 1874

THIRTEEN years experience in rearing Italian Queen Bees. Average sale each season, 700. Our prices are as low as any other breeder. All Queens warranted pure, and safe arrival guaranteed. Send for Price List. Agents wanted.

mar74m8* H. ALLEY, Wenham, Mass.

Italian Queeen Bees.

IMPORTED and Home-Bred. Pure as the purest, and cheap as the cheapest. Queens a specialty. Circulars free.

Address, T. N. HOLLETT,

mar74tf. Pennsville, Ohio.

WANTED.

1000 BROOD COMBS.

Address, stating size of combs, and lowest cash price.

mar74m1p C. ROOT, Elyria, Ohio.

1865—1874.

THE HONEY HOUSE

C. O. PERRINE,

Corner Lake and Market Sts.,

CHICAGO.

☞ Be not deceived by imitations. ☜

THE BUFFALO EMBOSSING PRESS

IS an invaluable article for every desk, for embossing Business Cards on Letter and Note Paper, Cards and Envelopes it is unequaled. It stamps the envelope on the face without mutilating the back.

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We furnish any Design or Emblem ready for immediate use.

Each Press is warranted, and any damage occurring with fair usage will be made good. Utility, Durability and Beauty, combined with cheapness.

For sale at manufacturers prices by

THE AMERICAN PUBLISHING CO.,

mar74tf Room 27, Tribune Building, Chicago.

RAPE AND RAPP.

WE herewith tender our thanks to Bee-Keepers for past favors, and are again ready to furnish Rape and Rapp, at 35 c. ℔ lb. postpaid. Three pounds sow an acre. Shall have a pamphlet ready by March 1st, treating on its culture, with other interesting matter, which will be sent FREE, to those ordering over 3 lbs. To all others, 10 cents. Address,

feb74m3 KRUSCHKE BROS., Berlin, Wis.